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Agricultural Memorandum No 459

Spring hatch of Nematoid Larvae Numerical Correction for Dry Days

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Ag Mem 439 produced a prediction formula for peak hatch using March Soil Temperature and "dry days" in February and March, which gave a slight improvement in accuracy. Better results, (although useless for prediction purposes) can be obtained by using the dry days from the beginning of March to the actual peak hatch date.

The basic temperature formula is, in days after March 31.

$$B = 150 - 10/3\ T_{31}$$

where T_{31} is the average 1 ft soil temperature for March.

To this a correction of + $1\frac{1}{2}$ days for every dry day over 25 must be added.

Results	T_{31}	B	Actual Date	Dry Days	Correction	Estimate	Error
1955	35.7	31	38	33	12	43	+ 5
1956	39.2	19	18	26	1	20	+ 2
1957	42.8	7	2	9	0	7	+ 5
			5	12	0	7	+ 2
			13	17	0	7	- 6
1958	36.2	29	41	34	13	42	+ 1
1959	41.5	12	18	27	3	15	- 3
1964	38.8	21	26	20	0	21	- 5
1965	37.7	24	34	29	6	30	- 4
			42	34	13	37	- 5
1966	40.3	16	19	29	6	22	+ 3
			23	30	7	23	0
1967	41.2	13	29	35	15	28	- 1
			29	35	15	28	- 1
1968	39.5	18	12	24	0	18	+ 6
			24	29	6	24	0
			26	31	9	27	+ 1
1969	35.9	30	32	$26\frac{1}{2}$	2	32	0
			37	27	3	33	- 4
			40	28	5	35	- 5
					Mean Error		3 days

Any comments or suggestions on this paper should be referred to the author.

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